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## In the Claims

Please amend the claims as follows:

1. (Amended) A method of sequencing a plurality of target nucleic acids each comprising a first domain and an adjacent second domain, said second domain comprising a plurality of target positions, said method comprising:

- a) providing first and second hybridization complexes comprising first and second target sequences, respectively and first and second sequencing primers, respectively, that hybridize to the first domain of said first and second target sequences, respectively, said first and second hybridization complexes attached to first and second microspheres, respectively, randomly distributed on a surface of a substrate;
- b) extending said first and second primers by the addition of a first nucleotide to a first detection position using a first enzyme to form first and second extended primer, respectively; and
- c) detecting the release of pyrophosphate (PPi) to determine the type of said first nucleotide added onto said first and second primers, respectively

6. (Amended) A method according to claim 1 further comprising:

- (d) extending said first and second extended primers by the addition of a second nucleotide to a second detection position using said first enzyme; and (e) detecting the release of pyrophosphate (PPi) to determine the type of said second nucleotide added onto said first and second primers, respectively.
- 13. (Amended) A method according to claim 10 wherein said determining comprises: